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AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A receiver for receiving and demodulating a signal including a combined symbol sequence that has a plurality of slots and includes data symbols and pilot symbols, said receiver comprising:

means for detecting positions of the pilot symbols in the combined symbol sequence;

means for generating pilot blocks by extracting in a plurality of slots the pilot symbols from the combined symbol sequence in response to a result of the detection;

means for obtaining channel estimation values by calculating a weighted sum of average values of the pilot symbols in the pilot blocks;

means for acquiring from the combined symbol sequence a data symbol sequence in accordance with the result of the detection;

means for compensating for channel fluctuations of the data symbol sequence using the channel estimation values; and

means for controlling the weighting in response to a rate of the channel fluctuations by using at least the pilot symbols included in the pilot blocks.

2. (Previously Presented) The receiver as claimed in claim 1, wherein said means for controlling the weighting comprises:

means for compensating for, using the channel estimation values, channel fluctuations of a pilot symbol sequence extracted from the combined symbol sequence;

means for generating an error signal from the compensated pilot symbol sequence and an ideal pilot symbol sequence; and

means for carrying out the weighting control using the error signal and the average values of the pilot symbols included in the pilot blocks.

3. (Previously Presented) The receiver as claimed in claim 1, wherein said means for controlling the weighting comprises:

means for generating an error signal from the compensated data symbol sequence and from result obtained by demodulating and deciding the compensated data symbol sequence; and

means for carrying out the weighting control using the error signal and the average values of the pilot symbols included in the pilot blocks.

4. (Previously Presented) The receiver as claimed in claim 1, wherein said means for controlling the weighting carries out the weighting control using as update values inner products of the channel estimation values of the data symbols and the average values of the pilot symbols included in the pilot blocks.

5. (Previously Presented) The receiver as claimed in claim 1, wherein said receiver receives a signal including a combined symbol sequence having a frame structure consisting of slots in which the pilot symbols consisting of a few symbols are inserted into the data symbol sequence at every fixed interval.

6. (Previously Presented) The receiver as claimed in claim 1, wherein the pilot blocks are formed from all the pilot symbols in a slot.

7. (Previously Presented) The receiver as claimed in claim 1, wherein when obtaining the channel estimation value of a data symbol in an n-th slot of the combined symbol sequence, where n is an integer, the pilot blocks are generated from an (n-K+1)-th slot to an (n+K)-th slot of the combined symbol sequence, where K is a natural number.

8. (Currently Amended) A receiver for receiving and demodulating a signal including a data symbol sequence and a pilot symbol sequence parallel to the data symbol sequence, said receiver comprising:

- means for generating a plurality of pilot blocks from the pilot symbol sequence;
- means for obtaining channel estimation values by calculating a weighted sum of average values of the pilot symbols in the pilot blocks;
- means for compensating for channel fluctuations of the data symbol sequence using the channel estimation values; and
- means for controlling the weighting in response to a rate of the channel fluctuations by using at least the pilot symbols included in the pilot blocks.

9. (Previously Presented) The receiver as claimed in claim 8, wherein said means for controlling the weighting comprises:

means for compensating for, using the channel estimation values, channel fluctuations of the pilot symbol sequence;

means for generating an error signal from the compensated pilot symbol sequence and an ideal pilot symbol sequence; and

means for carrying out the weighting control using the error signal and the average values of the pilot symbols included in the pilot blocks.

10. (Previously Presented) The receiver as claimed in claim 8, wherein said means for controlling the weighting comprises:

means for generating an error signal from the compensated data symbol sequence and from result obtained by demodulating and deciding the compensated data symbol sequence; and

means for carrying out the weighting control using the error signal and the average values of the pilot symbols included in the pilot blocks.

11. (Previously Presented) The receiver as claimed in claim 8, wherein said means for controlling the weighting carries out the weighting control using as update values inner products of the channel estimation values of the data symbols and the average values of the pilot symbols included in the pilot blocks.

12. (Previously Presented) The receiver as claimed in claim 8, wherein said receiver receives a signal including a data symbol sequence which is spread using a first spreading code, and a pilot symbol sequence which is parallel to the data symbol sequence and

spread using a second spreading code, the first spreading code and the second spreading code being orthogonal to each other.

13. (Previously Presented) The receiver as claimed in claim 8, wherein said receiver receives a signal including a spread data symbol sequence which is impressed on a first carrier, and a spread pilot symbol sequence which is parallel to the data symbol sequence and is impressed on a second carrier, the first carrier and the second carrier being orthogonal to each other.

14. (Previously Presented) The receiver as claimed in claim 8, wherein when obtaining the channel estimation value of an n-th data symbol in the data symbol sequence, where n is an integer, the plurality of pilot blocks are generated from an (n-K+1)-th pilot symbol to an (n+K)-th pilot symbol in the pilot symbol sequence, where K is a natural number.

15. (Previously Presented) The receiver as claimed in claim 8, wherein the plurality of pilot blocks have a same length.

16. (Currently Amended) A transceiver including a transmitting section for transmitting a signal including a combined symbol sequence that has a plurality of slots and includes data symbols and pilot symbols, and a receiving section for receiving and demodulating the signal, said receiving section comprising:

means for detecting positions of the pilot symbols in the combined symbol sequence;

means for generating pilot blocks by extracting, in a plurality of slots, the pilot symbols from the combined symbol sequence in response to a result of the detection;

means for obtaining channel estimation values by calculating a weighted sum of average values of the pilot symbols included in the pilot blocks;

means for acquiring from the combined symbol sequence a data symbol sequence in accordance with the result of the detection;

means for compensating for channel fluctuations of the data symbol sequence using the channel estimation values: and

means for controlling the weighting in response to a rate of the channel fluctuations by using at least the pilot symbols included in the pilot blocks.

17. (Currently Amended) A transceiver including a transmitting section for transmitting a signal including a data symbol sequence and a pilot symbol sequence parallel to the data symbol sequence, and a receiving section for receiving and demodulating the signal, said receiving section comprising:

means for generating a plurality of pilot blocks from the pilot symbol sequence;

means for obtaining channel estimation values by calculating a weighted sum of average values of the pilot symbols in the pilot blocks;

means for compensating for channel fluctuations of the data symbol sequence using the channel estimation values; and

means for controlling the weighting in response to a rate of the channel fluctuations by using at least the pilot symbols included in the pilot blocks.

18. (Currently Amended) A receiving method of receiving and demodulating a signal including a combined symbol sequence that has a plurality of slots and includes data symbols and pilot symbols, said receiving method comprising the steps of:

detecting positions of the pilot symbols in the combined symbol sequence;

generating pilot blocks by extracting, in a plurality of slots, the pilot symbols from the combined symbol sequence in response to a result of the detection;

obtaining channel estimation values by calculating a weighted sum of average values of the pilot symbols in the pilot blocks;

acquiring from the combined symbol sequence a data symbol sequence in accordance with the result of the detection; and

compensating for channel fluctuations of the data symbol sequence using the channel estimation value,

wherein the weighting is controlled in response to a rate of the channel fluctuations by using at least the pilot symbols included in the pilot blocks.

19. (Currently Amended) A receiving method of receiving and demodulating a signal including a data symbol sequence and a pilot symbol sequence parallel to the data symbol sequence, said receiving method comprising the steps of:

generating a plurality of pilot blocks from the pilot symbol sequence;

obtaining channel estimation values by calculating a weighted sum of average values of the pilot symbols in the pilot blocks; and

compensating for channel fluctuations of the data symbol sequence using the channel estimation value,

wherein the weighting is controlled in response to a rate of the channel fluctuations by
using at least the pilot symbols included in the pilot blocks.